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Manufacturers' Utilization of Plant Capacity

Final Report for Fourth Quarter 1988

U.S. Department of Commerce
BUREAU OF THE CENSUS

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U.S. domestic manufacturing plants used an estimated 80 percent of their preferred capacity during the fourth quarter of 1988 according to findings of a survey by the Bureau of the Census. The 80 percent rate for the fourth quarter is a 2 percent increase (± 1 percent) from the 78 percent for the fourth quarter of 1987. Preferred capacity is broadly defined as the most profitable level of operations.

Durable goods industries operated at a 7 percent lower rate (± 1 percent) than nondurable goods industries, with a preferred utilization rate of 77 percent compared to 84 percent for nondurable goods industries. Some of the lower preferred utilization rates among major industry groups were for miscellaneous manufacturing industries (SIC 39) at 74 percent and machinery, except electrical (SIC 35) and transportation equipment (SIC 37) both at 75 percent. Some of the higher utilization rates were for tobacco manufactures (SIC 21) at 93 percent, and petroleum and coal products (SIC 29) at 91 percent.

The utilization rates based on the practical level of operations generally followed the trends for the preferred rates. Both preferred and practical rates are shown in the accompanying table. Practical capacity is broadly defined as the greatest level of output a manufacturing establishment can achieve using realistic work patterns.

These estimates are based on information collected from a sample of approximately 9,000 manufacturing establishments. Estimates in this report are based on responses from approximately 85 percent of the survey panel. These estimates are subject to sampling variability and nonsampling error. The range indicated in this report is at the 90 percent confidence level. See the 1987 final report for a detailed discussion about survey methods and limitations of the data.

Care should be taken when comparing these results to other measures of capacity since this survey is based on information from individual manufacturing plants. Other measures employ different methodologies which may yield different utilization levels.

We have assumed no external constraints are placed on one industry from another when aggregating the data from 4-digit SIC level to 3-, 2-digit and U.S. levels. Therefore, our estimates may overstate capacity and understate capacity utilization, although we do not know to what extent this affects our results.

These data are obtained once each year from manufacturing establishments by means of a mailed questionnaire. Respondents are asked to report their actual, preferred, and practical levels of operation for the fourth quarter of the year in terms of value of production. From these reported dollar values, utilization rates for preferred and practical capacity are derived. Year-to-year changes in these rates are affected by changes in the estimated capacity of individual plants due to such factors as capital expenditures, capital retirements, changes in the workforce, changes in prices, changes in product mix, and changes in respondents' estimates of productivity.

ABBREVIATIONS AND SYMBOLS

The following abbreviations and symbols appear frequently in the tables:

—	No response.
(X)	Not applicable.
(S)	Data suppressed because they did not meet publication standards. This includes data cells with strong evidence of bias or where the level of imputation exceeds 50 percent.
n.e.c.	Not elsewhere classified.
SIC	Standard Industrial Classification.

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Address inquiries concerning these figures to U.S. Department of Commerce, Bureau of the Census, Industry Division, Washington, D.C. 20233, or call Michael Blake or Julie Scott, 763-5915.

Table 1a. Preferred Capacity Utilization Rates for Selected Industry Groups: Fourth Quarters 1979 to 1988

[For meaning of abbreviations and symbols, see introductory text]

SIC code	Industry group	Preferred rate									
		1988	1987	1986	1985	1984	1983	1982	1981	1980	1979
	All industries	**80**	**78**	**76**	**75**	**75**	**72**	**65**	**72**	**76**	**80**
	Durable goods industries	**77**	**76**	**73**	**72**	**73**	**68**	**60**	**69**	**72**	**78**
	Nondurable goods industries	**84**	**81**	**80**	**79**	**78**	**79**	**75**	**77**	**82**	**83**
	Advanced processing industries	**79**	**77**	**75**	**74**	**74**	**72**	**66**	**73**	**77**	**80**
	Primary processing industries	**82**	**81**	**78**	**76**	**76**	**74**	**63**	**70**	**78**	**84**
20	Food and kindred products	81	79	78	79	78	78	76	78	79	79
201	Meat products	84	81	87	82	80	80	80	83	83	82
21	Tobacco manufactures	93	93	95	90	89	88	88	92	91	78
22	Textile mill products	83	85	84	81	79	82	72	74	80	84
23	Apparel and other textile products	80	80	77	79	81	83	79	81	85	86
24	Lumber and wood products	34	80	82	82	77	79	65	63	72	80
242	Sawmills and planing mills	93	89	92	86	82	82	64	65	82	85
25	Furniture and fixtures	80	83	81	77	78	81	70	76	77	83
251	Household furniture	78	84	83	82	79	78	68	77	76	87
26	Paper and allied products	90	90	86	84	87	86	79	83	87	88
27	Printing and publishing	89	87	87	88	87	86	86	85	88	88
28	Chemicals and allied products	80	75	72	70	71	71	66	72	80	82
29	Petroleum and coal products	91	87	87	84	79	81	77	75	81	88
291	Petroleum refining	95	94	93	90	84	84	80	78	82	88
30	Rubber and plastics products, n.e.c.	82	83	79	76	79	77	69	69	77	78
307	Miscellaneous plastics products	80	83	80	76	79	76	68	67	77	78
31	Leather and leather products	87	81	74	75	71	74	69	70	78	84
32	Stone, clay, and glass products	80	81	77	78	77	73	63	68	73	82
33	Primary metal industries	84	80	71	69	69	65	47	67	75	81
331	Blast furnaces, steel works, and rolling and finishing mills	85	83	68	66	63	65	43	68	79	81
332	Iron and steel foundries	87	81	74	71	74	54	39	54	67	77
34	Fabricated metal products	76	75	72	72	74	66	58	67	71	77
344	Fabricated structural metal products	73	73	71	72	68	57	57	71	73	79
348	Metal forgings and stampings	79	80	78	79	83	74	52	66	65	75
35	Machinery, except electrical	75	71	64	67	69	64	58	72	73	77
353	Construction, mining, and materials handling machinery and equipment	68	63	47	57	53	46	43	72	72	76
354	Metalworking machinery and equipment	83	71	70	74	73	59	54	70	76	80
356	General industrial machinery and equipment	75	69	67	67	69	65	59	72	75	82
36	Electrical equipment and supplies	78	77	76	74	76	73	68	74	77	81
362	Electrical industrial apparatus	68	64	63	67	65	61	55	69	72	78
366	Communication equipment	80	81	84	76	77	72	74	79	79	83
37	Transportation equipment	75	76	75	74	70	65	56	64	66	75
371	Motor vehicles and motor vehicle equipment	85	80	78	81	83	76	54	58	58	75
372	Aircraft and parts	74	81	80	71	60	56	56	71	78	74
38	Instruments and related products	78	76	77	74	78	73	75	77	82	83
39	Miscellaneous manufacturing industries	74	70	69	72	73	73	66	69	67	84

Note: Some data are revised to include additional information.

Table 1b. Practical Capacity Utilization Rates for Selected Industry Groups: Fourth Quarters 1979 to 1988

[For meaning of abbreviations and symbols, see introductory text]

SIC code	Industry group	Practical rate									
		1988	1987	1986	1985	1984	1983	1982	1981	1980	1979
	All industries	**73**	**70**	**68**	**68**	**68**	**66**	**59**	**66**	**69**	**75**
	Durable goods industries	**69**	**67**	**64**	**65**	**65**	**61**	**53**	**63**	**65**	72
	Nondurable goods industries	**78**	**75**	**73**	**72**	**72**	**73**	**69**	**72**	**76**	**78**
	Advanced processing industries	**71**	**68**	**67**	**67**	**67**	**65**	**60**	**66**	**70**	**73**
	Primary processing industries	**77**	**75**	**71**	**70**	**70**	**67**	**58**	**66**	**73**	**79**
20	Food and kindred products	75	72	71	71	70	69	69	71	73	73
201	Meat products	77	75	78	74	76	74	74	79	79	78
21	Tobacco manufactures	86	80	86	79	78	84	85	87	81	75
22	Textile mill products	80	81	80	76	74	79	69	71	76	81
23	Apparel and other textile products	75	74	70	73	73	75	71	73	72	80
24	Lumber and wood products	80	74	73	73	67	70	59	58	67	74
242	Sawmills and planing mills	89	87	88	80	78	77	60	62	78	83
25	Furniture and fixtures	70	74	72	68	70	70	58	67	67	75
251	Household furniture	67	76	77	74	70	69	57	68	67	80
26	Paper and allied products	85	85	84	80	83	83	77	79	83	84
27	Printing and publishing	85	80	80	82	80	80	80	80	84	84
28	Chemicals and allied products	73	68	66	62	63	65	60	66	73	76
29	Petroleum and coal products	87	81	80	76	72	74	71	74	79	86
291	Petroleum refining	92	87	86	82	77	76	73	75	80	87
30	Rubber and plastics products, n.e.c.	78	77	73	70	73	72	64	64	72	72
307	Miscellaneous plastics products	75	76	73	69	73	71	63	63	72	72
31	Leather and leather products	80	70	67	71	66	69	65	72	74	77
32	Stone, clay, and glass products	75	73	69	71	72	67	57	63	70	77
33	Primary metal industries	79	74	64	63	65	61	44	63	70	78
331	Blast furnaces, steel works, and rolling and finishing mills	81	79	62	62	60	63	42	65	74	78
332	Iron and steel foundries	83	76	68	66	72	47	34	50	60	70
34	Fabricated metal products	68	65	63	64	66	56	50	60	62	70
344	Fabricated structural metal products	66	65	62	64	59	48	49	63	64	69
348	Metal forgings and stampings	73	73	69	70	75	68	48	59	58	70
35	Machinery, except electrical	66	63	55	59	62	57	50	65	65	70
353	Construction, mining, and materials handling machinery and equipment	58	56	41	51	48	40	38	64	64	69
354	Metalworking machinery and equipment	76	65	63	68	69	52	49	63	69	71
356	General industrial machinery and equipment	68	60	56	56	59	55	51	66	67	70
36	Electrical equipment and supplies	68	67	67	66	68	65	60	65	69	73
362	Electrical industrial apparatus	61	55	55	57	57	51	47	60	62	72
366	Communication equipment	68	68	73	71	69	63	65	68	69	70
37	Transportation equipment	68	67	69	67	64	58	50	57	59	70
371	Motor vehicles and motor vehicle equipment	61	77	74	76	79	71	50	53	51	71
372	Aircraft and parts	63	66	70	63	55	48	51	62	70	71
38	Instruments and related products	68	67	66	66	68	68	67	72	75	76
39	Miscellaneous manufacturing industries	61	58	59	63	64	61	56	62	59	78

Note: Some data are revised to include additional information.

Table 2. Capacity Utilization Rates, by Industry: Fourth Quarters 1985 to 1988

[For meaning of abbreviations and symbols, see introductory text]

SIC code	Industry	Preferred rate				Practical rate				Standard errors[1]					
										Preferred			Practical		
										Level		Change	Level		Change
		1988	1987	1986	1985	1988	1987	1986	1985	1988	1987	1988-1987	1988	1987	1988-1987
	All industries	**80**	**78**	**76**	**75**	**73**	**70**	**68**	**68**	**1**	**1**	**1**	**1**	**1**	**1**
	Durable goods industries	**77**	**76**	**73**	**72**	**69**	**67**	**64**	**65**	**1**	**1**	**1**	**1**	**1**	**1**
	Nondurable goods industries	**84**	**81**	**80**	**79**	**78**	**75**	**73**	**72**	**1**	**1**	**1**	**1**	**1**	**1**
	Advanced processing industries	**79**	**77**	**75**	**74**	**71**	**68**	**67**	**67**	**1**	**1**	**1**	**1**	**1**	**1**
	Primary processing industries	**82**	**81**	**78**	**76**	**77**	**75**	**71**	**70**	**1**	**1**	**1**	**1**	**1**	**1**
20	**Food and kindred products**	**81**	**79**	**78**	**79**	**75**	**72**	**71**	**71**	**1**	**1**	**1**	**1**	**1**	**1**
201	Meat products	84	81	87	82	77	75	78	74	2	2	2	2	2	3
2011	Meatpacking plants	85	84	86	84	81	80	82	80	1	1	1	1	1	2
2013	Sausages and other prepared meats	79	76	82	77	69	66	70	71	3	3	4	4	4	6
2016	Poultry dressing plants	93	88	93	83	88	83	83	68	2	4	4	3	4	5
2017	Poultry and egg processing	82	76	92	86	73	71	80	78	7	7	10	10	7	12
202	Dairy products	82	81	80	81	76	75	75	74	2	2	3	2	2	3
2021	Creamery butter	82	76	80	80	76	69	72	72	5	7	8	7	8	11
2022	Cheese, natural and processed	84	85	86	83	81	81	83	80	2	2	3	3	2	4
2023	Condensed and evaporated milk	81	77	78	90	74	67	72	79	5	6	8	5	5	7
2024	Ice cream and frozen desserts	66	67	66	65	54	62	60	57	9	7	11	7	7	9
2026	Fluid milk	85	85	81	81	81	80	76	76	2	3	4	3	3	4
203	Preserved fruits and vegetables	80	73	70	76	77	68	65	72	3	3	4	2	3	3
2032	Canned specialties	89	88	85	84	81	83	79	77	3	3	4	4	2	4
2033	Canned fruits and vegetables	80	64	58	72	77	60	54	69	5	5	7	5	5	7
2034	Dehydrated fruits, vegetables, soups	(S)	94	96	83	(S)	87	88	78	(X)	3	(X)	(X)	6	(X)
2035	Pickles, sauces, and salad dressing	66	62	68	69	70	59	60	66	9	8	12	5	7	8
2037	Frozen fruits and vegetables	81	78	74	76	73	67	67	71	5	5	7	5	4	6
2038	Frozen specialties	83	77	82	83	82	75	80	75	2	4	4	2	3	4
204	Grain mill products	84	83	80	80	78	77	73	74	2	2	3	2	2	2
2041	Flour, other grain mill products	92	89	89	83	90	85	86	81	3	3	4	3	3	4
2043	Cereal breakfast foods	92	90	82	86	87	84	77	82	1	1	2	2	2	2
2044	Rice milling	85	84	72	77	84	84	71	77	4	4	5	4	4	6
2045	Blended and prepared flour	63	65	54	54	58	58	51	51	11	12	16	9	9	12
2046	Wet corn milling	95	93	93	84	85	93	92	84	7	4	8	7	4	8
2047	Dog, cat, and other pet food	82	81	85	84	71	71	72	72	2	3	3	2	3	3
2048	Prepared feeds, n.e.c.	76	72	73	72	70	67	65	65	5	5	7	5	4	6
205	Bakery products	80	83	83	80	74	76	77	75	2	2	3	2	2	3
2051	Bread, cake, and related products	81	83	82	80	75	76	77	75	3	3	4	3	3	4
2052	Cookies and crackers	77	82	85	82	71	74	78	76	2	2	3	2	3	3
206	Sugar and confectionery products	87	84	80	82	78	75	73	69	3	3	4	4	4	5
2061	Raw cane sugar	93	90	87	75	91	88	84	74	4	3	5	4	3	4
2062	Cane sugar refining	92	92	97	92	86	83	89	86	1	–	1	–	–	–
2063	Beet sugar	99	100	99	100	97	96	92	99	2	3	3	2	2	3
2065	Confectionery products	84	81	74	79	73	71	68	64	5	4	6	5	4	7
2066	Chocolate and cocoa products	87	87	87	82	80	79	79	73	5	3	6	6	5	8
2067	Chewing gum	97	84	81	81	79	65	61	63	2	12	13	5	16	16
207	Fats and oils	89	84	81	84	86	79	76	80	4	4	6	4	4	6
2074	Cottonseed oil mills	92	79	62	90	90	75	58	89	5	12	13	6	12	13
2075	Soybean oil mills	87	90	89	84	85	88	86	81	3	5	5	3	5	5
2076	Vegetable oil mills, n.e.c.	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(X)	(X)	(X)	(X)	(X)	(X)
2077	Animal and marine fats and oils	99	84	80	81	95	76	74	73	2	5	5	5	5	8
2079	Shortening and cooking oils	83	80	81	85	82	77	77	81	9	8	12	9	8	12
208	Beverages	78	74	74	75	69	67	66	68	2	2	3	2	2	3
2082	Malt beverages	81	80	80	79	79	79	79	78	2	2	2	1	2	2
2083	Malt	99	100	95	86	98	100	93	84	1	1	1	2	1	2
2084	Wines, brandy, and brandy spirits	74	73	70	74	67	61	62	67	4	3	4	6	4	7
2085	Distilled liquor, except brandy	83	71	77	75	79	69	70	68	3	10	10	3	10	10
2086	Bottled and canned soft drinks	84	79	70	73	69	67	62	64	3	4	4	4	4	5
2087	Flavoring extracts and syrups, n.e.c.	59	56	70	75	49	49	58	62	4	4	5	5	3	6
209	Miscellaneous foods and kindred products	81	80	80	76	72	68	66	65	3	2	3	3	4	5
2091	Canned and cured seafoods	83	89	(S)	(S)	71	86	(S)	(S)	–	3	3	–	3	3
2092	Fresh or frozen packaged fish	79	84	81	80	72	81	72	70	6	4	7	5	4	7
2095	Roasted coffee	83	84	89	89	69	69	73	74	5	4	6	6	5	8
2097	Manufactured ice	83	75	84	77	72	57	67	58	10	10	14	13	8	15
2098	Macaroni and spaghetti	96	93	89	88	95	92	87	83	2	3	3	2	2	3
2099	Food preparations, n.e.c.	80	78	77	70	72	65	61	61	4	3	4	3	6	6
21	**Tobacco manufactures**	**93**	**93**	**95**	**90**	**86**	**80**	**86**	**79**	–	**1**	**1**	–	**1**	**1**
2111	Cigarettes	94	93	97	93	86	80	87	81	1	1	1	1	1	1
2121	Cigars	85	77	69	70	85	77	69	70	5	5	7	5	5	7
2131	Chewing and smoking tobacco	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(X)	(X)	(X)	(X)	(X)	(X)
2141	Tobacco stemming and redrying	84	82	68	72	83	82	66	72	2	2	3	2	2	3
22	**Textile mill products**	**83**	**85**	**84**	**81**	**80**	**81**	**80**	**76**	**2**	**2**	**3**	**2**	**2**	**3**
2211	Weaving mills, cotton	82	94	95	88	82	92	94	87	3	2	4	3	2	4
2221	Weaving mills, synthetic	89	93	87	78	88	90	84	76	3	2	3	3	2	3
2231	Weaving and finishing mills, wool	83	78	89	68	79	75	89	67	9	13	16	8	12	14
2241	Narrow fabric mills	77	79	72	60	75	75	67	45	7	8	11	6	8	10
225	Knitting mills	77	81	83	83	75	76	78	78	7	6	9	6	6	8
2251	Women's hosiery, except socks	85	90	82	78	82	85	74	70	8	6	10	10	8	12
2252	Hosiery, n.e.c.	91	88	94	87	81	72	80	75	5	3	6	5	13	13
2253	Knit outerwear mills	83	80	95	93	82	77	93	92	3	8	9	3	9	10
2254	Knit underwear mills	89	96	83	79	89	96	83	79	6	3	7	6	3	7
2257	Circular knit fabric mills	90	87	89	82	88	82	86	81	5	9	10	5	8	9
2258	Warp knit fabric mills	(S)	53	51	68	(S)	52	50	66	(X)	18	(X)	(X)	17	(X)
2259	Knitting mills, n.e.c.	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(X)	(X)	(X)	(X)	(X)	(X)
226	Textile finishing, except wool	89	83	88	85	84	76	84	81	3	5	6	4	5	6
2261	Finishing plants, cotton	95	93	97	90	89	88	89	86	3	5	6	6	9	10
2262	Finishing plants, synthetics	90	82	89	86	90	82	89	86	5	8	9	5	8	9
2269	Finishing plants, n.e.c.	83	77	77	81	68	57	66	69	5	6	7	8	4	9
227	Floor covering mills	82	84	83	84	77	81	77	72	4	1	4	4	2	4
2271	Woven carpet and rugs	70	72	77	73	70	72	77	72	8	1	8	8	1	8
2272	Tufted carpet and rugs	83	84	83	85	77	82	77	72	5	1	5	4	2	5
2279	Carpet and rugs, n.e.c.	89	(S)	(S)	(S)	83	(S)	(S)	(S)	9	(X)	(X)	12	(X)	(X)

Table 2. **Capacity Utilization Rates, by Industry: Fourth Quarters 1985 to 1988**—Con.

[For meaning of abbreviations and symbols, see introductory text]

SIC code	Industry	Preferred rate				Practical rate				Standard errors[1]					
										Preferred			Practical		
										Level		Change	Level		Change
		1988	1987	1986	1985	1988	1987	1986	1985	1988	1987	1988-1987	1988	1987	1988-1987
22	**Textile mill products**—Con.														
226	Yarn and thread mills	88	89	88	88	86	85	84	83	2	3	3	3	3	4
2281	Yarn mills, except wool	94	89	95	89	93	84	89	83	2	4	4	3	4	5
2282	Throwing and winding mills	82	93	78	92	77	92	78	92	4	3	5	7	3	8
2283	Wool yarn mills	(S)	71	82	76	(S)	71	62	76	(X)	1	(X)	(X)	1	(X)
2284	Thread mills	94	90	81	80	88	84	73	71	3	7	7	3	5	6
229	Miscellaneous textile goods	79	80	74	77	74	75	67	70	3	3	4	3	3	4
2291	Felt goods, except woven felts and hats	88	92	82	85	83	91	79	83	3	3	4	2	3	3
2292	Lace goods	(S)	87	95	84	(S)	87	94	71	(X)	5	(X)	(X)	5	(X)
2293	Paddings and upholstery filling	97	91	88	92	97	88	85	90	2	6	6	2	7	7
2294	Processed textile waste	82	60	77	75	82	60	77	75	5	15	16	5	15	16
2295	Coated fabrics, not rubberized	67	66	52	64	57	58	46	59	3	7	8	4	8	9
2296	Tire cord and fabric	93	93	95	86	93	93	94	88	2	3	3	2	3	3
2297	Nonwoven fabrics	74	80	79	79	70	76	69	62	8	4	9	7	2	7
2298	Cordage and twine	89	89	84	89	84	87	82	87	8	7	10	9	7	11
2299	Textile goods, n.e.c.	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(X)	(X)	(X)	(X)	(X)	(X)
23	**Apparel and other textile products**	**80**	**80**	**77**	**79**	**75**	**74**	**70**	**73**	**2**	**2**	**3**	**2**	**2**	**3**
2311	Men's and boys' suits and coats	88	93	82	94	82	89	78	90	2	4	5	3	6	6
232	Men's and boys' furnishings	86	93	85	90	82	88	81	86	4	2	4	5	2	5
2321	Men's and boys' shirts and nightwear	(S)	96	90	(S)	(S)	91	87	(S)	(X)	4	(X)	(X)	2	(X)
2322	Men's and boys' underwear	93	94	(S)	(S)	91	93	(S)	(S)	7	5	9	7	4	8
2323	Men's and boys' neckwear	97	98	99	94	97	86	99	94	3	2	3	3	2	3
2327	Men's and boys' separate trousers	98	(S)	84	(S)	97	(S)	80	(S)	2	(X)	(X)	2	(X)	(X)
2328	Men's and boys' work clothing	81	91	81	90	77	87	75	86	3	2	4	4	2	5
2329	Men's and boys' clothing, n.e.c.	(S)	(S)	87	83	(S)	(S)	83	79	(X)	(X)	(X)	(X)	(X)	(X)
233	Women's and misses' outerwear	75	70	69	(S)	71	64	61	(S)	3	5	6	4	5	6
2331	Women's and misses' blouses and waists	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(X)	(X)	(X)	(X)	(X)	(X)
2335	Women's and misses' dresses	(S)	53	(S)	(S)	(S)	44	(S)	(S)	(X)	8	(X)	(X)	8	(X)
2337	Women's and misses' suits and coats	64	80	71	(S)	60	73	60	(S)	8	8	11	9	7	11
2339	Women's and misses' outerwear, n.e.c.	76	83	68	88	73	83	63	84	3	3	5	4	4	5
234	Women's and children's undergarments	92	90	86	89	89	86	82	84	2	3	4	3	3	4
2341	Women's and children's underwear	94	91	92	93	93	88	88	88	2	3	4	2	3	4
2342	Brassieres and allied garments	(S)	89	74	(S)	(S)	81	71	(S)	(X)	8	(X)	(X)	7	(X)
235	Hats, caps and millinery	(S)	61	64	61	(S)	42	43	41	(X)	4	(X)	(X)	9	(X)
2351	Millinery	(S)	(S)	89	(S)	(S)	(S)	77	(S)	(X)	(X)	(X)	(X)	(X)	(X)
2352	Hats and caps except millinery	(S)	60	61	(S)	(S)	40	41	(S)	(X)	5	(X)	(X)	10	(X)
236	Children's outerwear	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(X)	(X)	(X)	(X)	(X)	(X)
2361	Children's dresses and blouses	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(X)	(X)	(X)	(X)	(X)	(X)
2363	Children's coats and suits	(S)	(S)	72	65	(S)	(S)	70	63	(X)	(X)	(X)	(X)	(X)	(X)
2369	Children's outerwear, n.e.c.	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(X)	(X)	(X)	(X)	(X)	(X)
2371	Fur goods	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(X)	(X)	(X)	(X)	(X)	(X)
238	Miscellaneous apparel and accessories	68	(S)	66	(S)	52	(S)	63	(S)	4	(X)	(X)	4	(X)	(X)
2381	Fabric dress and work gloves	74	90	86	90	69	77	78	81	6	4	7	5	6	7
2384	Robes and dressing gowns	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(X)	(X)	(X)	(X)	(X)	(X)
2385	Waterproof outergarments	(S)	57	65	(S)	(S)	53	62	(S)	(X)	25	(X)	(X)	25	(X)
2386	Leather and sheep lined clothing	80	79	75	(S)	80	79	71	(S)	13	12	17	13	12	17
2387	Apparel belts	71	(S)	(S)	(S)	44	(S)	(S)	(S)	4	(X)	(X)	6	(X)	(X)
2389	Apparel and accessories, n.e.c.	(S)	(S)	81	(S)	(S)	(S)	75	(S)	(X)	(X)	(X)	(X)	(X)	(X)
239	Miscellaneous fabricated textile products	81	86	80	75	79	79	71	71	2	2	3	2	3	4
2391	Curtains and draperies	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(X)	(X)	(X)	(X)	(X)	(X)
2392	House furnishings, n.e.c.	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(X)	(X)	(X)	(X)	(X)	(X)
2393	Textile bags	(S)	81	84	74	(S)	89	74	61	(X)	6	(X)	(X)	10	(X)
2394	Canvas and related products	88	81	80	92	83	67	69	86	3	3	4	6	7	10
2395	Pleating and stitching	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(X)	(X)	(X)	(X)	(X)	(X)
2396	Automotive and apparel trimmings	90	88	88	82	86	84	85	80	3	3	4	6	5	6
2397	Schiffli machine embroideries	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(X)	(X)	(X)	(X)	(X)	(X)
2399	Fabricated textile products, n.e.c.	80	66	59	82	79	65	47	66	2	5	5	2	5	5
24	**Lumber and wood products**	**84**	**80**	**82**	**82**	**80**	**74**	**73**	**73**	**2**	**2**	**3**	**2**	**3**	**3**
2411	Logging camps and logging contractors	87	82	82	93	86	70	67	77	5	5	7	5	11	12
242	Sawmills and planing mills	93	89	92	86	89	87	88	80	2	2	3	3	3	4
2421	Sawmills and planing mills, general	93	89	92	85	90	87	88	79	2	3	4	3	3	4
2426	Hardwood dimension and flooring	89	90	88	94	84	87	86	89	4	3	4	5	3	5
2429	Special product sawmills, n.e.c.	96	77	87	(S)	86	65	87	(S)	1	–	1	1	12	12
243	Millwork, plywood, and structural members	86	82	80	83	79	75	72	75	3	4	5	3	5	5
2431	Millwork	83	81	(S)	85	73	73	(S)	77	5	6	7	5	7	8
2434	Wood kitchen cabinets	88	81	80	79	87	76	65	71	4	10	10	4	14	14
2435	Hardwood veneer and plywood	73	77	73	66	67	65	61	54	6	7	9	6	8	10
2436	Softwood veneer and plywood	96	92	97	96	95	90	92	93	2	6	6	2	6	6
2439	Structural wood members, n.e.c.	86	72	49	70	75	60	45	65	7	7	10	10	11	14
244	Wood cabinets	91	88	80	84	89	86	70	76	2	4	5	3	4	5
2441	Nailed wood boxes and shook	84	81	73	82	78	73	60	66	6	5	8	8	4	8
2448	Wood pallets and skids	93	91	82	86	92	90	72	81	2	6	6	2	6	6
2449	Wood containers, n.e.c.	93	82	84	77	88	79	80	66	5	5	7	8	3	8
245	Wood buildings and mobile homes	65	65	74	65	58	62	67	57	4	6	7	4	7	7
2451	Mobile homes	76	61	81	(S)	74	59	72	(S)	7	8	11	8	8	11
2452	Prefabricated wood buildings	54	73	64	66	44	66	60	62	3	9	9	3	11	11
249	Miscellaneous wood products	72	67	73	78	73	65	66	70	6	4	7	7	4	8
2491	Wood preserving	62	57	62	61	59	53	56	58	9	7	12	9	5	10
2492	Particleboard	93	96	96	92	92	96	95	91	4	2	4	4	2	4
2499	Wood products, n.e.c.	70	64	(S)	(S)	72	62	(S)	(S)	8	5	9	10	5	11
25	**Furniture and fixtures**	**80**	**83**	**81**	**77**	**70**	**74**	**72**	**68**	**2**	**2**	**3**	**4**	**3**	**4**
251	Household furniture	78	84	83	82	67	76	77	74	4	3	4	5	3	6
2511	Wood household furniture	75	89	85	83	63	82	80	74	6	4	7	9	5	11
2512	Upholstered household furniture	87	90	92	90	84	87	87	85	3	2	3	3	2	3
2514	Metal household furniture	66	79	(S)	74	55	68	(S)	64	7	10	12	6	9	11
2515	Mattresses and bedsprings	84	87	79	79	67	55	73	71	6	8	9	8	7	11
2517	Wood TV and radio cabinets	(S)	83	94	72	(S)	56	77	61	(X)	8	(X)	(X)	17	(X)
2519	Household furniture, n.e.c.	85	52	50	64	85	52	49	63	11	9	14	11	8	14
252	Office furniture	83	85	82	77	73	73	68	67	4	5	6	6	6	8
2521	Wood office furniture	81	87	85	70	78	87	79	68	7	8	10	8	8	11
2522	Metal office furniture	83	84	81	80	71	69	66	67	4	5	7	7	7	10

Table 2. **Capacity Utilization Rates, by Industry: Fourth Quarters 1985 to 1988**—Con.

[For meaning of abbreviations and symbols, see introductory text]

SIC code	Industry	Preferred rate				Practical rate				Standard errors[1]					
										Preferred			Practical		
										Level		Change	Level		Change
		1988	1987	1986	1985	1988	1987	1986	1985	1988	1987	1988-1987	1988	1987	1988-1987
25	**Furniture and fixtures**—Con.														
2531	Public building and related furniture	99	92	73	74	99	92	70	69	1	6	6	1	6	6
254	Partitions and fixtures	76	76	73	69	65	63	62	57	6	4	7	7	6	9
2541	Wood partitions and fixtures	78	76	75	69	62	58	61	54	5	4	6	6	7	9
2542	Metal partitions and fixtures	75	76	72	69	68	68	62	60	10	5	11	13	8	15
259	Miscellaneous furniture and fixtures	79	86	82	73	78	78	74	66	3	4	5	3	5	6
2591	Drapery hardware and blinds and shades	(S)	90	81	76	(S)	89	80	76	(X)	5	(X)	(X)	5	(X)
2599	Furniture and fixtures, n.e.c.	90	83	83	72	88	70	69	60	6	7	8	5	7	9
26	**Paper and allied products**	**90**	**90**	**88**	**84**	**85**	**85**	**84**	**80**	**1**	**2**	**2**	**2**	**2**	**2**
2611	Pulp mills	98	97	97	92	97	96	96	92	1	2	2	1	2	2
2621	Paper mills, except building paper	98	98	97	94	97	97	95	93	1	1	1	1	1	1
2631	Paperboard mills	96	96	97	91	96	95	96	90	1	1	1	1	1	1
264	Miscellaneous converted paper products	84	87	87	82	78	83	81	76	2	2	2	2	2	3
2641	Paper coating and glazing	84	84	82	82	82	82	78	77	3	4	5	2	4	5
2642	Envelopes	90	92	89	91	87	90	87	84	3	3	4	4	3	5
2643	Bags, except textile bags	86	87	87	75	84	81	77	68	4	4	5	4	4	5
2645	Die-cut paper and board	88	89	88	85	73	83	79	81	3	5	5	7	5	8
2646	Pressed and molded pulp goods	89	86	79	85	88	85	69	77	3	4	5	3	4	5
2647	Sanitary paper products	91	91	92	87	87	86	88	83	1	2	2	3	2	3
2648	Stationery products	71	73	80	77	61	69	74	73	8	7	11	12	6	13
2649	Converted paper products, n.e.c.	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(X)	(X)	(X)	(X)	(X)	(X)
265	Paperboard containers and boxes	85	80	78	75	74	69	72	69	3	5	5	5	5	7
2651	Folding paperboard boxes	90	88	80	84	81	79	77	80	5	4	6	5	4	6
2652	Set-up paperboard boxes	91	89	88	82	91	89	88	82	5	5	7	6	5	7
2653	Corrugated and solid fiber boxes	85	77	76	72	74	65	71	57	5	7	8	8	8	11
2654	Sanitary food containers	83	78	78	77	70	70	72	69	3	4	5	5	5	7
2655	Fiber cans, drums, and similar products	71	76	61	63	65	68	57	56	11	11	15	8	8	12
2661	Building paper and board mills	81	79	80	76	81	79	80	76	4	4	5	4	4	5
27	**Printing and publishing**	**89**	**87**	**87**	**88**	**85**	**80**	**80**	**82**	**1**	**2**	**2**	**2**	**2**	**2**
2711	Newspapers	89	87	89	89	86	84	86	86	2	3	4	2	3	4
2721	Periodicals	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(X)	(X)	(X)	(X)	(X)	(X)
273	Books	93	90	(S)	(S)	89	85	(S)	(S)	3	4	5	5	4	6
2731	Book publishing	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(X)	(X)	(X)	(X)	(X)	(X)
2732	Book printing	89	77	77	84	84	69	67	75	4	8	9	5	8	10
2741	Miscellaneous	93	91	(S)	97	92	77	(S)	96	4	3	5	4	8	9
275	Commercial printing	85	86	84	85	80	79	76	79	2	2	3	2	3	4
2751	Commercial printing, letterpress	79	87	80	84	71	84	72	76	6	4	7	7	5	8
2752	Commercial printing, lithographic	88	86	85	85	83	77	77	79	2	3	3	2	4	4
2753	Engraving and plate printing	83	89	84	95	78	86	78	94	9	6	11	8	6	10
2754	Commercial printing, gravure	84	89	88	86	83	85	86	84	4	3	5	4	3	5
2761	Manifold business forms	82	85	83	85	74	80	78	79	4	3	5	5	4	6
2771	Greeting card publishing	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(X)	(X)	(X)	(X)	(X)	(X)
278	Blankbooks and bookbinding	81	83	80	77	66	62	64	62	4	4	6	6	7	9
2782	Blankbooks and looseleaf binders	87	86	82	78	67	60	62	58	3	3	4	7	8	10
2789	Bookbinding and related work	69	75	76	78	62	69	69	74	9	9	13	11	12	16
279	Printing trade services	(S)	77	85	85	(S)	71	82	79	(X)	2	(X)	(X)	3	(X)
2791	Typesetting	–	73	(S)	86	–	73	(S)	86	–	3	3	–	2	2
2793, 2794	Photoengraving, electrotyping and stereotyping	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(X)	(X)	(X)	(X)	(X)	(X)
2795	Lithographic platemaking services	84	79	(S)	83	72	67	(S)	71	2	3	4	3	4	5
28	**Chemicals and allied products**	**80**	**75**	**72**	**70**	**73**	**68**	**66**	**62**	**1**	**2**	**3**	**1**	**2**	**2**
281	Industrial inorganic chemicals	71	73	67	68	68	70	65	66	7	2	8	7	2	7
2812	Alkalies and chlorine	93	89	86	82	91	89	86	79	2	2	3	2	2	3
2813	Industrial gases	76	77	77	79	75	76	76	78	6	6	9	7	6	9
2816	Inorganic chemicals	87	90	84	82	85	88	79	82	3	4	5	4	4	5
2819	Industrial inorganic chemicals, n.e.c.	66	68	61	63	63	66	60	61	9	3	10	9	3	9
282	Plastics materials and synthetics	91	90	86	80	89	86	84	78	2	3	3	2	3	3
2821	Plastics materials and resins	89	88	84	80	86	84	82	78	4	4	5	4	4	5
2822	Synthetic rubber	89	84	80	69	89	84	80	68	2	2	3	2	2	3
2823	Cellulosic manmade fibers	96	95	96	93	96	89	93	92	2	1	2	2	2	2
2824	Organic fibers, noncellulosic	95	95	90	84	93	93	89	83	1	1	1	1	1	1
283	Drugs	77	74	73	68	66	63	64	58	2	2	3	2	2	3
2831	Biological products	80	73	74	74	77	64	70	63	11	13	17	11	15	19
2833	Medicinals and botanicals	62	80	75	78	61	70	68	77	10	2	10	10	2	10
2834	Pharmaceutical preparations	78	73	73	67	66	62	63	56	1	2	2	1	2	2
284	Soap, cleaners, and toilet goods	78	76	74	76	69	67	63	64	2	2	3	2	2	3
2841	Soap and other detergents	79	75	81	79	70	65	65	60	2	3	4	4	5	6
2842	Polishes and sanitation goods	(S)	76	74	74	(S)	68	65	58	(X)	6	(X)	(X)	5	(X)
2843	Surface active agents	88	88	84	81	78	57	54	50	4	5	6	6	6	8
2844	Toilet preparations	75	77	72	79	68	69	63	70	2	2	3	2	3	3
2851	Paints and allied products	70	62	68	67	59	54	53	54	5	7	9	6	7	9
286	Industrial organic chemicals	89	83	80	75	86	80	77	72	2	2	2	2	3	3
2861	Gum and wood chemicals	61	63	59	65	57	45	58	61	6	10	12	6	13	15
2865	Cyclic crudes and intermediates	88	85	81	70	85	83	79	66	3	3	4	3	3	4
2869	Industrial organic chemicals, n.e.c.	90	83	80	76	87	81	77	73	2	2	3	3	3	4
287	Agricultural chemicals	77	73	59	62	74	68	57	59	5	3	6	5	3	6
2873	Nitrogenous fertilizers	92	90	50	75	89	87	47	74	4	7	7	4	6	7
2874	Phosphatic fertilizers	83	77	68	73	83	76	67	70	4	5	6	4	5	6
2875	Fertilizers, mixing only	(S)	(S)	27	(S)	(S)	(S)	26	(S)	(X)	(X)	(X)	(X)	(X)	(X)
2879	Agricultural chemicals, n.e.c.	81	72	76	58	76	65	71	54	4	4	5	4	4	6
289	Miscellaneous chemical products	79	53	57	49	70	49	51	43	3	14	14	2	13	13
2891	Adhesives and sealants	74	76	70	67	62	70	63	57	5	6	8	5	5	7
2892	Explosives	51	50	42	44	42	45	35	39	5	6	8	4	6	7
2893	Printing ink	85	93	80	74	77	86	55	54	10	2	10	9	5	10
2895	Carbon black	94	93	89	78	92	93	89	78	5	3	6	4	3	5
2899	Chemical preparation, n.e.c.	89	42	53	42	82	39	49	37	4	17	17	2	15	15

Table 2. **Capacity Utilization Rates, by Industry: Fourth Quarters 1985 to 1988**—Con.

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SIC code	Industry	Preferred rate				Practical rate				Standard errors[1]					
										Preferred			Practical		
										Level		Change	Level		Change
		1988	1987	1986	1985	1988	1987	1986	1985	1988	1987	1988-1987	1988	1987	1988-1987
29	**Petroleum and coal products**	**91**	**87**	**87**	**84**	**87**	**81**	**80**	**76**	**1**	**2**	**2**	**1**	**2**	**2**
2911	Petroleum refining	95	94	93	90	92	87	86	82	1	1	1	1	1	1
295	Paving and roofing materials	75	69	73	72	69	63	68	65	4	7	8	5	7	8
2951	Paving mixtures and blocks	72	60	73	70	63	54	65	59	6	11	12	6	9	11
2952	Asphalt felts and coating	78	80	74	74	77	75	72	74	6	7	9	6	8	10
299	Miscellaneous petroleum and coal products	80	63	64	58	78	57	56	52	4	8	9	4	9	10
2992	Lubricating oils and greases	80	62	64	60	77	56	55	54	5	9	11	5	10	11
2999	Petroleum and coal products, n.e.c.	83	68	63	51	83	68	62	44	4	7	8	4	7	8
30	**Rubber and miscellaneous plastics products**	**82**	**83**	**79**	**76**	**78**	**77**	**73**	**70**	**2**	**2**	**3**	**2**	**2**	**3**
3011	Tires and inner tubes	96	94	90	82	93	92	83	80	1	1	1	1	1	1
3021	Rubber and plastics footwear	(S)	86	(S)	92	(S)	86	(S)	92	(X)	9	(X)	(X)	9	(X)
3031	Reclaimed rubber	77	(S)	66	82	70	(S)	61	78	4	(X)	(X)	5	(X)	(X)
3041	Rubber and plastics hose and belting	79	78	68	67	71	64	58	56	4	5	6	5	8	9
3069	Fabricated rubber products, n.e.c.	84	78	71	76	82	73	67	68	4	6	7	4	5	6
3079	Miscellaneous plastics products	80	83	80	76	75	76	73	69	2	3	3	3	3	4
31	**Leather and leather products**	**87**	**81**	**74**	**75**	**80**	**70**	**67**	**71**	**3**	**4**	**5**	**4**	**4**	**6**
3111	Leather tanning and finishing	87	(S)	(S)	(S)	84	(S)	(S)	(S)	6	(X)	(X)	7	(X)	(X)
3131	Boot and shoe cut stock and findings	90	87	73	62	90	86	67	61	2	2	3	2	2	3
314	Footwear, except rubber	88	87	75	77	80	71	68	73	4	5	6	6	5	8
3142	House slippers	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(X)	(X)	(X)	(X)	(X)	(X)
3143	Men's footwear, except athletic	96	78	85	89	80	71	78	82	7	8	11	10	11	15
3144	Women's footwear, except athletic	87	96	72	65	86	91	71	63	4	6	7	4	4	5
3149	Footwear, except rubber, n.e.c.	97	(S)	68	79	59	(S)	46	75	1	(X)	(X)	19	(X)	(X)
3151	Leather gloves and mittens	83	79	74	83	83	78	73	82	5	4	6	5	4	6
3161	Luggage	(S)	58	58	55	(S)	51	52	51	(X)	16	(X)	(X)	16	(X)
317	Handbags and personal leather goods	81	75	79	80	69	70	68	76	7	9	11	8	9	12
3171	Women's handbags and purses	(S)	70	79	79	(S)	70	69	79	(X)	15	(X)	(X)	15	(X)
3172	Personal leather goods	76	81	79	80	57	70	68	72	9	4	10	9	11	14
3199	Leather goods, n.e.c.	78	75	71	72	67	64	61	59	10	7	12	13	9	16
32	**Stone, clay, and glass products**	**80**	**81**	**77**	**78**	**75**	**73**	**69**	**71**	**2**	**2**	**3**	**2**	**2**	**3**
3211	Flat glass	82	91	89	79	79	88	85	75	8	2	8	7	2	7
322	Glass and glassware, pressed or blown	94	87	82	88	91	83	79	85	2	2	3	2	2	3
3221	Glass containers	96	92	92	93	94	86	91	91	2	2	2	1	2	2
3229	Pressed and blown glass, n.e.c.	91	81	72	83	88	79	67	78	4	3	5	4	3	5
3231	Products of purchased glass	93	88	85	90	91	86	79	88	3	4	5	3	4	5
3241	Cement, hydraulic	95	96	95	85	94	96	93	78	3	2	4	3	2	4
325	Structural clay products	73	75	55	65	69	71	48	57	8	7	10	8	8	11
3251	Brick and structural clay tile	(S)	(S)	70	68	(S)	(S)	58	54	(X)	(X)	(X)	(X)	(X)	(X)
3253	Ceramic wall and floor tile	90	84	86	84	90	84	82	80	5	7	9	5	7	9
3255	Clay refractories	38	44	31	50	34	38	27	47	10	12	15	10	10	14
3259	Structural clay products, n.e.c.	77	(S)	75	79	75	(S)	73	74	17	(X)	(X)	17	(X)	(X)
326	Pottery and related products	82	80	80	76	79	77	76	72	4	4	6	4	4	6
3261	Vitreous plumbing fixtures	86	79	86	87	82	78	86	84	3	4	5	3	4	5
3262	Vitreous china food utensils	83	86	88	83	81	87	84	80	5	2	6	6	3	7
3263	Fine earthenware food utensils	–	–	–	(S)	–	–	–	(S)	–	–	–	–	–	–
3264	Porcelain electrical supplies	78	77	70	71	78	74	68	66	11	10	15	11	11	15
3269	Pottery products, n.e.c.	82	80	70	66	73	72	63	62	9	7	11	12	10	15
327	Concrete, gypsum, and plaster products	70	73	74	74	64	60	62	66	4	4	5	4	4	5
3271	Concrete block and brick	82	81	82	83	77	76	78	69	4	6	7	4	6	7
3272	Concrete products, n.e.c.	(S)	63	66	65	(S)	54	56	60	(X)	5	(X)	(X)	5	(X)
3273	Ready-mixed concrete	74	74	72	74	70	56	57	62	6	7	9	6	7	8
3274	Lime	77	80	75	78	76	78	73	76	11	9	14	10	8	13
3275	Gypsum products	82	94	93	94	82	94	92	94	9	5	10	9	5	10
3281	Cut stone and stone products	91	99	97	83	80	86	89	74	6	1	6	14	9	16
329	Miscellaneous nonmetallic mineral products	83	84	78	77	77	76	71	68	3	3	4	3	2	4
3291	Abrasive products	84	85	80	77	76	76	69	66	4	3	5	4	3	5
3292	Asbestos products	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(X)	(X)	(X)	(X)	(X)	(X)
3293	Gaskets, packing and sealing devices	87	94	83	80	72	77	69	66	5	5	7	8	5	10
3295	Minerals, ground or treated	93	88	85	71	90	82	79	69	7	8	10	6	6	8
3296	Mineral wool	89	86	84	84	88	86	83	84	2	4	4	2	4	4
3297	Nonclay refractories	(S)	64	(S)	72	(S)	60	(S)	66	(X)	15	(X)	(X)	11	(X)
3299	Nonmetallic mineral products, n.e.c.	79	69	67	70	77	68	67	70	7	7	9	6	5	8
33	**Primary metal industries**	**84**	**80**	**71**	**68**	**79**	**74**	**64**	**63**	**1**	**2**	**2**	**2**	**2**	**2**
331	Blast furnace and basic steel products	85	83	68	66	81	78	62	62	1	2	2	2	2	2
3312	Blast furnaces and steel mills	86	85	68	69	82	79	62	67	1	2	2	2	2	2
3313	Electrometallurgical products	68	83	66	48	62	80	64	40	5	6	8	7	6	9
3315	Steel wire and related products	89	84	85	80	86	80	81	66	3	5	5	3	6	6
3316	Cold finishing of steel shapes	88	89	80	69	87	81	72	59	2	5	5	2	6	7
3317	Steel pipe and tubes	69	64	47	41	61	60	43	37	6	7	9	6	7	10
332	Iron and steel foundries	87	81	74	71	83	76	68	66	3	3	5	3	3	4
3321	Gray iron foundries	91	82	73	71	87	77	67	66	2	3	4	2	4	4
3322	Malleable iron foundries	87	76	73	54	86	76	67	53	2	5	5	2	5	5
3324	Steel investment foundries	77	85	88	79	75	81	81	73	7	6	9	6	5	8
3325	Steel foundries, n.e.c.	84	76	66	70	75	68	61	66	14	14	19	11	11	15
333	Primary nonferrous metals	89	91	69	65	86	90	68	63	4	3	5	4	3	5
3331	Primary copper	94	(S)	61	64	94	(S)	60	63	2	(X)	(X)	2	(X)	(X)
3332	Primary lead	82	86	63	55	81	82	63	54	7	8	10	7	7	9
3333	Primary zinc	(S)	56	56	53	(S)	56	55	52	(X)	23	(X)	(X)	23	(X)
3334	Primary aluminum	86	95	76	78	85	92	75	76	6	1	6	6	1	6
3339	Primary nonferrous metals, n.e.c.	94	90	62	48	92	88	62	46	1	1	2	1	1	2
3341	Secondary nonferrous metals	80	49	52	51	60	44	48	47	5	10	11	10	8	13
335	Nonferrous rolling and drawing	82	80	75	71	77	76	69	66	3	3	4	3	3	4
3351	Copper rolling and drawing	89	87	81	82	80	83	69	71	2	4	4	5	3	5
3353	Aluminum sheet, plate, and foil	78	81	81	80	77	81	79	78	1	1	1	1	1	1
3354	Aluminum extruded products	87	87	77	70	84	85	74	69	4	4	6	5	4	7

Table 2. **Capacity Utilization Rates, by Industry: Fourth Quarters 1985 to 1988**—Con.

[For meaning of abbreviations and symbols, see introductory text]

SIC code	Industry	Preferred rate				Practical rate				Standard errors[1]					
										Preferred			Practical		
										Level		Change	Level		Change
		1988	1987	1986	1985	1988	1987	1986	1985	1988	1987	1986-1987	1988	1987	1986-1987
35	**Machinery, except electrical**—Con.														
356	General industrial machinery—Con.														
3564	Blowers and fans	78	72	69	74	73	65	61	61	5	4	7	4	4	6
3565	Industrial patterns	78	70	82	90	77	70	77	90	14	12	19	14	12	18
3566	Speed changers, drives, and gears	84	63	79	61	82	57	69	50	4	15	16	5	14	15
3567	Industrial furnaces and ovens	100	96	80	76	85	75	85	61	1	4	4	4	10	10
3568	Power transmission equipment, n.e.c.	79	76	59	52	70	73	56	47	7	5	9	5	4	7
3569	General industrial machinery, n.e.c.	75	63	74	75	70	52	56	56	11	7	13	10	8	13
357	Office and computing machines	76	74	73	76	67	65	62	66	4	2	4	3	2	4
3573	Electronic computing equipment	77	74	72	75	68	65	60	65	4	2	4	3	3	4
3574	Calculating and accounting machines	57	61	73	(S)	53	51	66	(S)	4	6	7	3	4	5
3576	Scales and balances, except laboratory	(S)	(S)	(S)	90	(S)	(S)	(S)	80	(X)	(X)	(X)	(X)	(X)	(X)
3579	Office machines, n.e.c., and typewriters	76	86	84	88	75	84	84	86	1	3	3	1	3	3
358	Refrigeration and service machinery	80	81	81	72	67	68	65	66	3	3	4	3	3	5
3581	Automatic merchandising machines	77	75	68	70	75	70	59	65	10	10	14	11	10	14
3582	Commercial laundry equipment	85	88	80	83	54	80	76	64	9	6	11	4	10	11
3585	Refrigeration and heating equipment	79	80	79	72	73	75	73	68	4	4	5	3	3	4
3586	Measuring and dispensing pumps	(S)	93	86	68	(S)	53	47	60	(X)	2	(X)	(X)	9	(X)
3589	Service industry machinery, n.e.c.	82	82	93	73	51	55	49	61	4	7	9	7	8	10
359	Miscellaneous machinery, except electrical	78	83	71	70	70	73	65	64	4	4	5	4	3	5
3592	Carburetors, pistons, rings, valves	61	75	75	78	58	71	69	72	6	6	8	6	8	10
3599	Machinery, except electrical, n.e.c.	80	84	71	69	71	73	65	63	5	4	6	5	3	6
36	**Electrical and electronic equipment**	**78**	**77**	**76**	**74**	**68**	**67**	**67**	**66**	**1**	**1**	**2**	**1**	**2**	**2**
361	Electric distributing equipment	85	80	79	74	77	70	69	67	3	3	4	3	3	4
3612	Transformers	82	77	73	76	80	75	69	71	5	4	6	5	4	6
3613	Switchgear and switchboard apparatus	86	82	82	73	76	68	69	65	3	5	5	4	4	6
362	Electrical industrial apparatus	68	64	63	67	61	55	55	57	4	4	6	5	4	6
3621	Motors and generators	74	70	61	64	66	61	54	56	4	5	6	5	6	7
3622	Industrial controls	58	55	62	67	51	46	55	61	8	6	10	8	8	11
3623	Welding apparatus, electric	72	65	70	66	66	57	56	46	6	5	8	5	4	6
3624	Carbon and graphite products	79	69	61	65	76	65	51	52	5	9	10	5	8	9
3629	Electrical industrial apparatus, n.e.c.	76	78	81	79	70	63	66	65	7	8	10	5	9	10
363	Household appliances	85	84	80	72	69	73	72	64	2	3	3	3	3	4
3631	Household cooking	82	65	67	61	71	60	62	56	5	8	9	4	8	7
3632	Household refrigerators and freezers	85	90	77	59	80	81	75	56	1	3	3	1	2	2
3633	Household laundry equipment	91	96	98	90	85	91	91	85	1	1	1	2	3	3
3634	Electric housewares and fans	85	85	76	73	67	67	58	58	3	7	7	5	5	7
3635	Household vacuum cleaners	92	85	75	63	62	64	68	55	1	1	1	5	6	8
3636	Sewing machines	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(X)	(X)	(X)	(X)	(X)	(X)
3639	Household appliances, n.e.c.	77	92	98	97	54	82	89	87	7	3	7	11	7	13
364	Electric lighting and wiring equipment	73	72	73	77	64	66	64	65	3	4	4	3	4	5
3641	Electric lamps	71	71	70	72	71	71	70	71	7	4	8	7	4	8
3643	Current-carrying wiring devices	72	77	65	66	64	72	57	53	4	5	6	4	5	6
3644	Noncurrent-carrying wiring devices	80	83	75	79	76	82	72	73	3	4	5	3	5	5
3645	Residential lighting fixtures	47	(S)	74	83	36	(S)	44	66	8	(X)	(X)	8	(X)	(X)
3646	Commercial lighting fixtures	79	83	81	86	66	74	76	65	5	5	7	6	6	8
3647	Vehicular lighting equipment	89	87	84	95	83	81	78	88	2	3	3	4	4	5
3648	Lighting equipment, n.e.c.	86	89	74	85	68	71	60	64	3	2	3	8	7	10
365	Radio and TV receiving equipment	83	76	67	80	75	65	62	64	4	3	5	4	4	6
3651	Radio and TV receiving sets	74	77	69	79	67	67	61	72	5	5	7	6	5	7
3652	Phonograph records	(S)	(S)	(S)	82	(S)	(S)	(S)	54	(X)	(X)	(X)	(X)	(X)	(X)
366	Communication equipment	80	81	84	76	68	68	73	71	2	1	2	2	3	3
3661	Telephone and telegraph apparatus	72	69	81	73	56	61	68	62	2	2	3	3	2	4
3662	Radio and TV communication equipment	82	85	85	77	72	71	74	74	2	2	3	2	3	4
367	Electronic components and accessories	80	75	71	70	72	69	63	62	2	2	3	2	2	3
3671	Electron tubes, all types	97	96	88	78	95	95	84	75	1	1	1	2	2	3
3674	Semiconductors and related devices	78	77	70	69	71	71	65	62	4	2	4	3	2	3
3675	Electronic capacitors	83	78	68	70	73	67	61	66	3	11	11	5	15	16
3676	Electronic resistors	(S)	85	79	71	(S)	78	72	65	(X)	4	(X)	(X)	6	(X)
3677	Electronic coils and transformers	80	81	65	81	80	77	65	75	3	4	4	3	5	5
3678	Electronic connectors	78	63	62	59	70	57	56	51	4	9	10	6	9	11
3679	Electronic components, n.e.c.	81	74	73	72	72	66	60	60	3	4	4	5	4	6
369	Miscellaneous electrical equipment and supplies	73	76	75	78	65	69	69	69	6	4	7	7	5	9
3691	Storage batteries	79	82	92	89	79	79	82	85	5	6	8	5	5	7
3692	Primary batteries, dry and wet	75	69	(S)	70	71	65	(S)	62	5	6	8	4	5	6
3693	X-ray apparatus and tubes	66	66	66	71	51	56	58	59	15	9	17	15	11	18
3694	Engine electrical equipment	74	82	79	82	73	78	77	75	2	1	3	2	1	2
3699	Electrical equipment and supplies, n.e.c.	81	98	81	89	67	75	66	72	5	1	5	3	10	10
37	**Transportation equipment**	**75**	**76**	**75**	**74**	**68**	**67**	**69**	**67**	**1**	**1**	**2**	**1**	**2**	**2**
371	Motor vehicles and equipment	85	80	78	81	81	77	74	76	1	1	1	1	1	1
3711	Motor vehicles and car bodies	86	81	78	81	83	80	76	78	1	1	1	1	1	1
3713	Truck and bus bodies	95	88	80	85	89	84	74	80	6	6	8	6	7	9
3714	Motor vehicle parts and accessories	84	79	79	84	80	74	74	76	1	1	2	1	1	2
3715	Truck trailers	80	71	66	76	70	62	51	62	3	6	6	4	7	8
3716	Motor homes produced on purchased chassis	58	60	57	38	56	53	52	37	9	6	10	8	4	9
372	Aircraft and parts	74	81	80	71	63	66	70	63	1	1	1	1	1	2
3721	Aircraft	72	80	70	64	63	73	64	58	1	1	1	1	1	1
3724	Aircraft engines and engine parts	79	78	94	78	64	65	76	63	1	1	2	2	2	2
3728	Aircraft equipment, n.e.c.	73	84	85	81	63	60	73	74	2	3	3	3	2	3
373	Ship and boat building and repairing	63	64	61	70	53	52	53	59	4	5	6	4	5	6
3731	Ship building and repairing	58	57	56	68	50	48	48	58	4	6	7	4	6	7
3732	Boat building and repairing	79	(S)	82	77	64	(S)	76	62	11	(X)	(X)	9	(X)	(X)
3743	Railroad equipment	79	72	43	45	55	64	39	41	4	7	8	11	7	13
3751	Motorcycles, bicycles, and parts	82	82	80	82	61	55	52	47	7	6	9	13	8	15
376	Guided missiles, space vehicles, parts	64	69	71	67	60	64	64	60	1	1	1	2	1	2
3761	Guided missiles and space vehicles	63	66	69	65	60	61	63	57	1	1	1	1	1	1
3764	Space propulsion units and parts	66	83	81	80	54	77	69	70	8	1	8	9	2	9
3769	Space vehicle equipment, n.e.c.	71	83	78	72	69	77	71	67	2	2	3	2	2	3
379	Miscellaneous transportation equipment	41	39	55	(S)	38	25	48	(S)	14	14	19	12	11	16
3792	Travel trailers and campers	80	(S)	58	(S)	77	(S)	39	(S)	9	(X)	(X)	8	(X)	(X)
3795	Tanks and tank components	27	29	77	(S)	26	17	72	(S)	14	16	21	13	12	17

Table 2. **Capacity Utilization Rates, by Industry: Fourth Quarters 1985 to 1988**—Con.

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SIC code	Industry	Preferred rate				Practical rate				Standard errors[1]					
										Preferred			Practical		
										Level		Change	Level		Change
		1988	1987	1986	1985	1988	1987	1986	1985	1988	1987	1988-1987	1988	1987	1988-1987
33	**Primary metal industries**—Con.														
335	Nonferrous rolling and drawing—Con.														
3355	Aluminum rolling and drawing, n.e.c.	56	57	49	63	55	55	48	63	9	8	12	8	6	10
3356	Nonferrous rolling and drawing, n.e.c.	65	62	60	57	58	57	55	51	13	12	17	10	10	14
3357	Nonferrous wire drawing and insulating	89	83	76	70	82	78	68	65	3	4	5	3	4	5
336	Nonferrous foundries	79	62	75	69	74	54	68	64	6	4	7	7	4	8
3361	Aluminum foundries	76	75	72	73	73	71	68	68	8	6	9	9	6	11
3362	Brass, bronze, and copper foundries	78	66	71	63	67	54	64	58	9	7	11	8	9	12
3369	Nonferrous foundries, n.e.c.	90	39	88	61	85	31	74	57	6	5	7	7	4	8
339	Miscellaneous primary metal products	86	81	74	76	82	77	60	65	4	3	5	4	5	6
3398	Metal heat treating	95	87	82	88	90	81	72	82	2	3	3	3	6	6
3399	Primary metal products, n.e.c.	80	74	65	63	73	72	49	49	8	6	10	7	7	10
34	**Fabricated metal products**	**76**	**75**	**72**	**72**	**66**	**65**	**63**	**64**	**2**	**2**	**3**	**3**	**2**	**3**
341	Metal cans and shipping containers	62	60	62	60	61	56	59	58	17	16	24	16	15	22
3411	Metal cans	61	58	61	60	59	54	57	58	18	17	24	17	15	22
3412	Metal barrels, drums, and pails	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(X)	(X)	(X)	(X)	(X)	(X)
342	Cutlery, handtools, and hardware	83	83	86	87	77	75	80	77	4	4	5	4	4	5
3421	Cutlery	89	87	87	93	88	84	82	90	6	5	8	6	4	7
3423	Hand and edge tools, n.e.c.	73	75	82	85	69	70	74	78	9	9	13	8	7	10
3425	Handsaws and saw blades	84	84	99	73	56	52	92	43	7	9	11	15	18	23
3429	Hardware, n.e.c.	89	87	87	88	84	81	81	81	2	4	4	3	4	5
343	Plumbing and heating, except electric	88	94	89	80	78	77	74	71	4	2	4	4	5	6
3431	Metal sanitary ware	87	92	80	69	70	84	75	67	4	6	9	6	8	10
3432	Plumbing fittings and brass goods	89	98	89	83	87	81	71	79	7	2	7	5	8	10
3433	Heating equipment except electric	86	90	93	83	72	71	75	66	6	3	7	6	7	10
344	Fabricated structural metal products	73	73	71	72	66	65	62	64	4	3	5	3	3	4
3441	Fabricated structural metal	67	74	77	75	60	66	68	69	11	6	13	10	7	12
3442	Metal doors, sash, and trim	80	77	77	78	73	71	62	68	4	4	6	5	5	7
3443	Fabricated plate work (boiler shops)	74	74	69	64	68	65	58	58	3	5	6	3	5	6
3444	Sheet metal work	78	67	72	79	71	59	64	68	7	7	10	6	7	9
3446	Architectural metal work	(S)	83	(S)	63	(S)	70	(S)	56	(X)	4	(X)	(X)	5	(X)
3448	Prefabricated metal buildings	60	(S)	55	55	54	(S)	51	50	11	(X)	(X)	8	(X)	(X)
3449	Miscellaneous metal work	77	65	60	80	72	59	54	76	7	4	8	8	4	9
345	Screw machine products, bolts, etc.	84	85	80	83	73	74	69	73	4	3	5	4	4	6
3451	Screw machine products	78	85	88	88	71	75	77	77	7	4	8	4	4	6
3452	Bolts, nuts, rivets, and washers	89	84	75	80	75	73	64	70	4	4	6	7	6	9
346	Metal forgings and stampings	79	80	78	79	73	73	69	70	6	2	6	5	3	5
3462	Iron and steel forgings	77	60	60	57	65	48	53	47	9	5	10	9	6	11
3463	Nonferrous forgings	57	54	57	74	54	52	54	65	2	2	3	2	2	3
3465	Automotive stampings	82	86	87	86	77	82	81	78	11	3	12	10	3	10
3466	Crowns and closures	69	59	65	71	67	57	63	68	9	8	12	8	7	11
3469	Metal stampings, n.e.c.	78	84	78	79	73	77	63	70	4	4	6	5	4	6
347	Metal services, n.e.c.	63	63	67	60	45	45	48	51	8	5	9	13	9	16
3471	Plating and polishing	73	76	71	69	61	64	59	59	8	7	10	7	6	9
3479	Metal coating and allied services	54	52	62	51	34	33	39	43	12	7	14	16	11	19
348	Ordnance and accessories	74	71	67	68	61	57	54	52	2	3	4	3	3	4
3482	Small arms ammunition	83	74	62	59	77	70	54	49	6	7	9	7	7	10
3483	Ammunition, except for small arms, n.e.c.	67	65	63	63	58	55	52	50	2	5	6	2	4	4
3484	Small arms	77	68	61	59	73	65	59	56	10	8	12	9	7	11
3489	Ordnance and accessories, n.e.c.	83	(S)	82	(S)	55	(S)	55	(S)	2	(X)	(X)	6	(X)	(X)
349	Miscellaneous fabricated metal products	77	73	66	67	66	65	59	60	3	4	5	3	3	4
3493	Steel springs, except wire	81	72	60	70	67	64	53	64	8	4	9	4	4	6
3494	Valves and pipe fittings	78	69	62	61	67	60	55	54	4	8	8	3	6	6
3495	Wire springs	73	71	69	73	57	55	55	61	10	11	15	8	8	11
3496	Miscellaneous fabricated wire products	85	82	69	85	82	81	66	77	3	4	5	2	4	4
3497	Metal foil and leaf	82	84	71	70	79	81	70	66	4	4	5	4	4	5
3498	Fabricated pipe and fittings	(S)	63	51	60	(S)	55	48	56	(X)	8	(X)	(X)	5	(X)
3499	Fabricated metal products, n.e.c.	75	77	75	72	64	71	66	66	8	4	8	9	5	10
35	**Machinery, except electrical**	**75**	**71**	**64**	**67**	**66**	**63**	**55**	**59**	**2**	**1**	**2**	**1**	**1**	**2**
351	Engines and turbines	63	60	56	61	60	56	53	57	2	3	4	2	3	3
3511	Turbines and turbine generator sets	58	64	63	66	56	60	62	61	3	3	4	3	3	4
3519	Internal combustion engines, n.e.c.	65	59	54	59	62	55	50	55	3	3	4	3	3	4
352	Farm and garden machinery	63	57	33	47	56	51	30	42	2	3	4	2	3	4
3523	Farm machinery and equipment	61	49	26	42	54	43	24	37	3	3	4	3	3	4
3524	Lawn and garden equipment	68	86	83	81	60	78	73	72	3	5	5	3	6	7
353	Construction and related machinery	66	63	47	57	58	56	41	51	4	3	4	3	3	4
3531	Construction machinery	78	68	51	53	69	61	46	48	5	5	6	4	4	6
3532	Mining machinery	68	66	57	71	56	55	49	61	3	5	6	3	4	5
3533	Oil field machinery	43	35	25	49	35	31	20	42	7	5	8	5	5	7
3534	Elevators and moving stairways	86	84	80	86	76	74	70	78	5	4	6	6	6	8
3535	Conveyors and conveying equipment	51	72	61	73	44	60	54	64	8	5	9	5	6	8
3536	Hoists, cranes, and monorails	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(X)	(X)	(X)	(X)	(X)	(X)
3537	Industrial trucks and tractors	86	74	75	76	83	73	75	76	7	9	12	7	9	12
354	Metalworking machinery	83	71	70	74	76	65	63	68	3	4	5	3	3	4
3541	Machine tools, metal cutting types	70	54	46	53	63	50	42	46	5	5	7	4	4	5
3542	Machine tools, metal forming types	88	90	73	84	81	80	61	69	8	2	9	8	3	8
3544	Special dies, tools, jigs and fixtures	90	77	81	87	88	76	78	83	4	8	9	5	8	9
3545	Machine tool accessories	75	65	77	73	65	55	64	65	9	9	12	5	6	8
3546	Power driven hand tools	94	85	73	78	86	66	56	68	2	4	5	3	5	5
3547	Rolling mill machinery	93	(S)	73	69	73	(S)	71	57	5	(X)	(X)	9	(X)	(X)
3549	Metalworking machinery, n.e.c.	86	74	62	71	75	69	56	69	9	3	9	5	4	7
355	Special industry machinery	84	69	71	65	71	61	56	50	3	7	8	3	6	7
3551	Food products machinery	88	85	87	76	68	75	65	61	6	5	7	9	7	11
3552	Textile machinery	89	96	(S)	(S)	86	95	(S)	(S)	9	3	9	10	4	10
3553	Woodworking machinery	(S)	81	80	72	(S)	70	72	65	(X)	7	(X)	(X)	4	(X)
3554	Paper industries machinery	86	85	65	70	81	77	56	55	6	5	7	6	7	9
3555	Printing trades machinery	86	57	86	81	80	53	77	72	6	20	20	5	17	18
3559	Special industry machinery, n.e.c.	80	63	60	54	66	53	45	40	4	10	11	5	8	9
356	General industrial machinery	75	69	67	67	68	60	56	56	3	3	4	3	3	4
3561	Pumps and pumping equipment	69	64	64	69	59	57	52	59	7	6	10	5	5	7
3562	Ball and roller bearings	81	74	62	67	74	67	57	62	4	5	7	6	6	8
3563	Air and gas compressors	60	68	56	58	54	58	49	49	6	7	10	6	7	9

Table 2. **Capacity Utilization Rates, by Industry: Fourth Quarters 1985 to 1988**—Con.

[For meaning of abbreviations and symbols, see introductory text]

SIC code	Industry	Preferred rate				Practical rate				Standard errors[1]					
										Preferred			Practical		
										Level		Change	Level		Change
		1988	1987	1986	1985	1988	1987	1986	1985	1988	1987	1988-1987	1988	1987	1988-1987
37	**Transportation equipment**—Con.														
379	Miscellaneous transportation equipment—Con.														
3799	Transportation equipment, n.e.c.	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(X)	(X)	(X)	(X)	(X)	(X)
38	**Instruments and related products**	**78**	**76**	**77**	**74**	**68**	**67**	**66**	**66**	**2**	**2**	**2**	**2**	**2**	**3**
3811	Engineering and scientific instruments	74	71	68	72	64	66	63	67	5	5	7	5	4	6
382	Measuring and controlling devices	72	68	70	73	59	57	59	61	4	4	5	4	3	5
3822	Environmental controls	83	85	83	83	70	74	72	73	6	4	7	7	5	8
3823	Process control instruments	59	55	56	60	49	45	47	52	5	3	5	5	3	6
3824	Fluid meters and counting devices	(S)	93	93	97	(S)	87	87	91	(X)	3	(X)	(X)	6	(X)
3825	Instruments to measure electricity	81	71	88	83	69	63	77	69	4	7	8	4	6	7
3829	Measuring and controlling devices, n.e.c.	67	72	52	66	49	53	40	48	14	15	20	12	11	16
3832	Optical instruments and lenses	77	77	(S)	(S)	65	58	(S)	(S)	4	9	10	4	12	13
384	Medical instruments and supplies	84	81	82	73	71	73	73	66	2	2	3	3	3	4
3841	Surgical and medical instruments	85	91	(S)	64	73	80	(S)	57	4	3	5	4	4	5
3842	Surgical appliances and supplies	81	81	81	81	67	76	75	77	3	3	4	5	4	6
3843	Dental equipment and supplies	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(X)	(X)	(X)	(X)	(X)	(X)
3851	Opthalmic goods	78	(S)	94	(S)	75	(S)	73	(S)	7	(X)	(X)	4	(X)	(X)
3861	Photographic equipment and supplies	80	82	81	77	77	77	71	71	1	1	2	2	2	3
3873	Watches, clocks, and watchcases	(S)	69	89	95	(S)	60	58	73	(X)	12	(X)	(X)	8	(X)
39	**Miscellaneous manufacturing industries**	**74**	**70**	**69**	**72**	**61**	**58**	**59**	**63**	**3**	**3**	**4**	**3**	**4**	**5**
391	Jewelry, silverware, and plated ware	69	69	71	71	50	50	51	54	10	9	13	9	9	12
3911	Jewelry, precious metal	63	64	69	69	44	44	48	51	11	11	15	9	9	13
3914	Silverware and plated ware	91	86	71	71	80	82	51	59	5	6	8	5	4	7
3915	Jewelers' materials and lapidary work	(S)	95	82	(S)	(S)	93	74	(S)	(X)	5	(X)	(X)	6	(X)
3931	Musical instruments	(S)	47	(S)	48	(S)	44	(S)	41	(X)	5	(X)	(X)	3	(X)
394	Toys and sporting goods	76	65	58	74	68	60	50	70	5	7	8	6	7	9
3942	Dolls	(S)	77	63	(S)	(S)	68	54	(S)	(X)	4	(X)	(X)	5	(X)
3944	Games, toys, and children's vehicles	92	75	72	80	78	70	68	76	2	7	7	7	8	10
3949	Sporting and athletic goods, n.e.c.	67	59	50	70	62	53	41	66	7	9	12	8	10	13
395	Pens, pencils, office and art supplies	75	78	83	74	64	68	78	65	6	4	7	7	4	8
3951	Pens and mechanical pencils	75	86	92	70	71	83	87	61	14	10	17	13	9	16
3952	Lead pencils and art goods	71	71	84	76	57	59	81	74	9	6	10	10	8	13
3953	Marking devices	74	64	(S)	77	57	55	(S)	62	11	5	12	16	6	17
3955	Carbon paper and inked ribbons	83	88	76	76	72	74	68	67	6	3	6	7	5	8
396	Costume jewelry and notions	82	87	(S)	73	77	76	(S)	62	7	5	8	8	4	8
3961	Costume jewelry	79	(S)	90	70	79	(S)	78	59	10	(X)	(X)	10	(X)	(X)
3962	Artificial flowers	(S)	90	(S)	84	(S)	85	(S)	83	(X)	2	(X)	(X)	4	(X)
3963	Buttons	(S)	71	(S)	(S)	(S)	61	(S)	(S)	(X)	9	(X)	(X)	10	(X)
3964	Needles, pins, and fasteners	97	88	(S)	(S)	94	67	(S)	(S)	2	6	7	2	2	3
399	Miscellaneous manufactures	78	73	77	73	63	57	66	64	5	5	7	5	5	7
3991	Brooms and brushes	63	73	67	79	45	56	64	61	10	10	14	9	12	15
3993	Signs and advertising displays	77	69	81	84	60	53	68	70	9	10	13	10	10	14
3995	Burial caskets	77	(S)	66	78	56	(S)	56	76	13	(X)	(X)	3	(X)	(X)
3996	Hard surface floor coverings	90	95	87	83	87	90	81	76	2	1	2	2	3	4
3999	Manufacturing industries, n.e.c.	81	71	71	60	71	55	62	55	5	4	6	6	5	8

Note: Some data are revised to include additional information. See introduction for a discussion of the revision.

[1]A description of the standard error is given in appendix B, "Qualifications of the Data" of the 1987 report.

Table 3. Preferred Capacity Utilization Rates for Establishments Reporting a Principal Reason for Operating at Less Than 100 Percent: Fourth Quarter 1988

[For meaning of abbreviations and symbols, see introductory text]

SIC code	Industry	Rate for all establishments reporting reason[1]	Insufficient orders	Inadequate labor force	Lack of fuel or electric energy	Lack of materials or supplies	Strike or work stoppages	Seasonal operation, weather, natural disaster and other
	All industries	**74**	**72**	**84**	**89**	**83**	**86**	**80**
	Durable goods industries	**78**	**76**	**87**	**89**	**85**	**88**	**82**
	Nondurable goods industries	**71**	**70**	**83**	–	**79**	**85**	**78**
20	Food and kindred products	77	74	87	89	84	85	77
21	Tobacco manufactures	84	85	66	–	65	–	93
22	Textile mill products	77	75	88	–	92	77	91
23	Apparel and other textile products	78	78	87	–	95	93	85
24	Lumber and wood products	82	77	91	–	92	–	83
25	Furniture and fixtures	74	72	90	–	93	–	70
26	Paper and allied products	84	81	92	–	90	91	90
27	Printing and publishing	83	83	87	–	–	–	85
28	Chemicals and allied products	75	73	110	–	86	95	79
29	Petroleum and coal products	86	84	–	–	92	–	86
30	Rubber and plastics products, n.e.c.	78	75	86	–	54	–	83
31	Leather and leather products	84	83	94	–	–	–	89
32	Stone, clay, and glass products	80	75	91	–	99	–	86
33	Primary metal products	78	75	86	–	85	–	84
34	Fabricated metal products	68	66	83	–	90	–	77
35	Machinery, except electrical	57	66	78	–	68	85	69
36	Electrical equipment and supplies	73	72	76	–	70	–	76
37	Transportation equipment	69	69	87	–	63	–	71
38	Instruments and selected products	72	72	–	–	93	–	74
39	Miscellaneous manufacturing industries	71	69	77	–	–	–	83

[1]Table includes only those establishments which indicated the principal reason for operating at less than 100 percent of preferred operations.

Table 4. Practical Capacity Utilization Rates, by the Length of Time to Expand to Practical Capacity: Fourth Quarters 1988 and 1987

[For meaning of abbreviations and symbols, see introductory text]

SIC code	Industry		Rate for all establishments reporting length of time to expand[1]	1 week or less	2 weeks to 1 month	2 to 3 months	4 to 6 months	More than 6 months
	All industries	**1988**	**74**	**95**	**75**	**68**	**59**	51
		1987	**71**	**93**	**74**	**62**	**56**	**53**
	Durable goods industries	**1988**	**79**	**94**	**74**	**67**	**70**	**80**
		1987	**76**	**92**	**72**	**65**	**63**	**58**
	Nondurable goods industries	**1988**	**70**	**97**	**75**	**68**	**50**	**49**
		1987	**67**	**94**	**76**	**61**	**55**	**52**
20	Food and kindred products	1988	78	91	89	65	62	76
		1987	74	87	67	65	61	64
21	Tobacco manufactures	1988	86	92	74	–	99	45
		1987	80	93	50	98	81	43
22	Textile mill products	1988	81	96	75	70	74	91
		1987	81	96	78	66	71	48
23	Apparel and other textile products	1988	78	99	75	77	65	52
		1987	74	99	73	79	49	50
24	Lumber and wood products	1988	83	98	78	68	52	72
		1987	75	97	72	64	49	37
25	Furniture and fixtures	1988	70	99	68	69	61	35
		1987	71	101	73	69	57	47
26	Paper and allied products	1988	84	98	78	69	74	52
		1987	83	98	74	65	64	75
27	Printing and publishing	1988	82	92	83	76	67	58
		1987	78	91	72	76	65	58
28	Chemicals and allied products	1988	75	97	79	60	64	55
		1987	69	94	72	57	58	56
29	Petroleum and coal products	1988	88	95	76	85	57	77
		1987	84	93	78	69	46	74
30	Rubber and plastics products, n.e.c.	1988	74	98	69	68	66	46
		1987	77	99	73	68	73	52
31	Leather and leather products	1988	78	100	81	76	33	27
		1987	65	81	64	76	59	50
32	Stone, clay, and glass products	1988	80	94	75	67	78	43
		1987	74	92	69	60	72	53
33	Primary metal products	1988	77	94	80	71	57	36
		1987	75	96	78	63	54	50
34	Fabricated metal products	1988	66	95	61	64	56	57
		1987	66	79	75	60	62	48
35	Machinery, except electrical	1988	66	91	72	66	59	51
		1987	59	89	71	59	50	48
36	Electrical equipment and supplies	1988	67	99	75	67	59	55
		1987	68	99	76	65	57	57
37	Transportation equipment	1988	72	100	81	64	49	47
		1987	69	98	81	57	56	53
38	Instruments and selected products	1988	67	99	73	62	60	53
		1987	66	99	83	58	62	55
39	Miscellaneous manufacturing industries	1988	59	100	77	65	41	30
		1987	59	99	76	54	42	49

[1]Table includes only those establishments which indicated the amount of time necessary to expand to practical capacity.

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